



-ALERT-

Service Bulletin Number 2XXX.X.X-34-3307

Erroneous FMS Operation During a Holding Pattern Course Reversal Approach Transition

NOTE: Revision A to this Service Bulletin was issued due to the lack of field compliance.

NOTE: Revision B to this Service Letter has been repaginated to fit two pages.

A. Effectivity/Compatibility

This Service Bulletin applies to the following Universal Avionics FMS installations operating with SCN 802.0/902.0, 802.1/902.1, 802.2/902.2, 802.3/902.3, and 802.4/902.4.

- UNS-1E, P/N 2017-XX-()
- UNS-1Esp, P/N 2019-XX-()
- UNS-1F, P/N 2192-X0-()
- UNS-1L, P/N 2116-XX-()
- UNS-1C+, P/N 10172-XX-()
- UNS-1Csp+, P/N 10192-XX-()
- UNS-1D+, P/N 11922-X0-()
- UNS-1K+, P/N 11162-XX-()

B. Compliance

The Flight Crew Procedures called out in section D. “Action” of this Alert Service Bulletin must be complied with immediately.

Upgrade the FMS to currently available software SCN 802.5/902.5 or later FAA approved software versions.

C. Description

A problem has been discovered that results in misleading guidance and loss of FMS function. This may occur at automatic approach activation when an approach transition includes a holding pattern course reversal at the FAF, with a *NO LINK* or *GAP* in the flight plan prior to the FAF.

The FMS will output valid but erroneous data on the digital and analog busses to the display and FGS systems. The FMS CDU will clearly annunciate the failed condition with “CDU DATA BUS FAIL” message in red letters, but data on the primary flight displays will depict misleading information.

Recognition of the failure can be determined by:

- On the FMS CDU, the message CDU DATA BUS FAIL will be display in red.
- On the flight instruments:
 - The distance to the next waypoint (FAF) will stop counting down.
 - The lateral deviation display will be active but erroneous.
 - The vertical deviation will be invalid and stowed.

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There are over 1000 of these transitions in the SCN 802/902 series world wide navigation database. A list of known affected locations and approaches may be accessed at <http://www.uasc.com/customer/3307transitions.htm>.

The new software is field loadable by specifically authorized facilities. A list of these facilities can be found on our web site (www.uasc.com) under Support, FMS SCN 802 upgrades.

A number of aircraft OEMs have created Service Bulletins to assist in software upgrades to comply with this Alert Service Bulletin. If your FMS was installed as part of the basic aircraft type design, contact your aircraft OEM for assistance.

D. Action

Maintenance

- Verify applicability of this Service Bulletin by comparing Effectivity/Compatibility with installed unit(s).
- Ensure that the Flight Crew has been notified of this Service Bulletin.
- Upgrade the FMS to currently available software SCN 802.5/902.5 or later FAA approved software versions (SCN 802.8/902.8 recommended).

Flight Crew Procedures

- Ensure that the Operator's Manual (2423sv802/902) contains the applicable Temporary Change released 29 January 2009 and filed in the Arrivals section.
- Ensure the underlying NAVAID is tuned and displayed for VOR/NDB/LOC/BC overlay approaches.
- Procedural mitigations (addressed in the Operator's Manual temporary change) are as follows:
 - DO NOT enter this type of transition in the flight plan, or
 - The flight crew should ensure that all *NO LINK* or *GAP* entries before the FAF have been removed from the flight plan, or
 - Manually activate the approach more than 2 nm prior to the FAF.

E. Material, Cost, and Availability

Contact our Product Support Department for pricing, scheduling, and shipping details.

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